



**UNITED STATES DEPARTMENT OF COMMERCE
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/105,547	06/26/98	LENZ E	P0399/LAMIP0

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EXAMINER
BETTENDORF, J

ART UNIT	PAPER NUMBER
2817	

DATE MAILED: 04/14/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/105,547

Applicant(s)
LENZ

Examiner
Justin P. Bettendorf

Group Art Unit
2817



☐ Responsive to communication(s) filed on _____

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-22 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-3, 7-10, 14-18, and 22 is/are rejected.

☒ Claim(s) 4-6, 11-13, and 19-21 is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☒ The drawing(s) filed on Jun 26, 1998 is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☒ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

Specification

1. The use of the trademark "TEFLON" and "VESPEL" has been noted in this application. It should be capitalized wherever it appears and be **accompanied by the generic terminology**.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

2. The disclosure is objected to because of the following informalities: On page 2, line 3 presently reads as "reactor top 102" which should be changed to --reactor top 112--. Appropriate correction is required.

Drawings

3. Figures 1 and 2 should be designated by a legend such as --Prior Art-- in order to clarify what is applicant's invention. (See MPEP § 608.02(g)).
4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: "120" in figure 1. Correction is required.

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5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: "302" and "304" (it should be noted that only 302(a), 302(b), 304(a), and 304(b) are shown). Correction is required.

The applicant is required to provide a copy of the drawings with proposed drawing changes marked in red ink.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 7, 14, and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Each of claims 7, 14, and 22 recites "TeflonTM" which renders the scope of the claim uncertain because a trademark denotes the manufacturer, not the product, and the product covered by a trademark or trade name can vary.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-3, 8-10, 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsukamoto U.S. Patent 5,868,848 in view of Zhao et al. U.S. Patent 5,589,003.

The Tsukamoto reference discloses in figure 1 a plasma device with a chuck 11. Figure 4 discloses the chuck 11 with a focus ring “annular dielectric body” 71 and a “tube-shaped portion” 72 (col. 6, lines 43-47). However, the flange of the “tube-shaped portion” is not fully embedded in the dielectric body 71.

The Zhao et al. reference teaches in a plasma chuck a groove 20 which accepts a flange 28 (i.e. imbedded therein) in order to secure the shield 10 (col. 4, lines 35-38).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have embedded the “tube-shaped portion” flange into the focus ring dielectric body 71 in the plasma device of Tsukamoto as taught by Zhao et al. because such a modification would have advantageously secured the “tube-shaped portion” to the “dielectric body” thereby suggesting the obvious modification.

10. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsukamoto in view of Zhao et al. as applied above, and further in view of applicant’s admitted prior art figure 1.

The Tsukamoto/Zhao et al. combination, as noted above, shows a dielectric body focus ring with a “tube-shaped portion” flange embedded therein. However, the combination does not show a confinement ring.

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The applicant's admitted prior art figure 1 and description thereof discloses a confinement ring in order to help confine the plasma to the region above the substrate being processed.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have added the well-known confinement ring shown by the applicant's admitted prior art figure 1 to the plasma device of the Tsukamoto/Zhao et al. combination because such a modification would have advantageously confined the plasma to the substrate thereby suggesting the obvious modification.

Allowable Subject Matter

11. Claims 4-6, 11-13, and 19-21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. Claims 7, 14, and 22 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

13. Since allowable subject matter has been indicated, applicant is encouraged to submit formal drawings in response to this Office action. The early submission of formal drawings will permit the Office to review the drawings for acceptability and to resolve any informalities remaining therein before the application is passed to issue. This will avoid possible delays in the issue process.

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Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Lenz et al. U.S. Patent 5,569,356 discloses a clamping member which also provides plasma confinement in an area between the electrode and the wafer being processed.

b. Ye et al. U.S. Patent 5,891,348 discloses a focus ring 90.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin Bettendorf whose telephone number is (703) 308-2780 and FAX number is (703) 308-7724.



Justin P. Bettendorf
Patent Examiner
Art Unit 2817

jpb
April 9, 1999